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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/449,649	11/30/1999	JOSEPH J. NAJDA	NAJDA-2-8-1	6532

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EXAMINER
VOLPER, THOMAS E

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/449,649	NAJDA ET AL.	
	Examiner	Art Unit	
	Thomas Volper	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 1-23 is withdrawn in view of the newly discovered reference(s) to Kubo et al. (US 5,636,215). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo et al. (US 5,636,215) in view of Huggins et al. (US 6,198,744).

Regarding claims 1, 10 and 19, Kubo discloses a plurality of remote terminals being connected by a ring with two paths which transfer signals in opposite directions relative to each path (see Figure 29). Cell switch (70) in Figure 27, and ATM interface (72) in Figure 28 represent the first multiplexer and asynchronous feeder multiplexer, respectively, of the present invention. Kubo discloses replacing components of signals on the first path, wherein the signal components are represented by cells, with copies of components of signals on the second path such that at any location in the network both paths provide all signals (col. 16, lines 6-47). Kubo also discloses cell selection devices (75a and 75b) that either discard a cell or send a cell to an

ATM terminal (13a) via a multiplexing unit (76) (col. 16, lines 26-33). Furthermore, the node equipment (73) chooses one path from which to receive cells based on, for example, the path having a reduced delay time (col. 16, lines 39-45). This chosen path represents the path with the best available signal, as in the present invention. Kubo fails to expressly disclose a central office for feeding duplicate signals on each path. Huggins discloses a central office (16 of Fig. 1) connected to an optical ring. The central office can statistically multiplex multiple data signals from various host digital terminals (38 of Fig. 1) into a data signal for transmission onto the ring (col. 2, lines 60-64). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide a central office as one of the nodes in the ring network of Kubo that would feed duplicate signals along both paths on the ring. One of ordinary skill in the art would have been motivated to do this to control the flow of traffic onto the ring from terminals connected to a node acting as a central office.

Regarding claims 2-5, 11-14 and 20-23, as mentioned above, Kubo discloses cell selection units (75a and 75b), representing the protection logic of the present invention, that chose to either discard or select a cell. The path that is chosen from which to select a cell is based on the path having a reduced delay time, which is a measure of signal quality. In addition, the signal may be selected based on whether a loss of signal has been determined for one of the paths (see Figure 23). Kubo also shows that cells from each path may be chosen to form a composite output signal. This capability is demonstrated by the multiplexing unit (76) connection to the two cell selection units (75a and 75b) inside each ATM interface (72) (see Figure 28).

Regarding claims 6, 7, 9, 15, 16 and 18, Kubo discloses a ring that uses SDH technology (see Figure 26). It is well known that SDH is analogous to SONET, and that the basic data transfer vehicle of SONET is STS-1. In addition, the basic level of transport, STS-1, relates to a DS3 capacity.

Regarding claims 8 and 17, Kubo et al. in view of Huggins et al. fails to expressly disclose using metallic channels to form the first and second paths of a ring. It is well known in the art to use metallic channels to conduct electrical signals. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use metallic channels to form the ring in the teaching of Kubo et al. in view of Huggins et al. One of ordinary skill in the art would have been motivated to do this in the case that optical technology was not available.

Conclusion

4. Any inquiry concerning this communication, or earlier communications from the examiner should be directed to Thomas Volper whose telephone number is 703-305-8405 and fax number is 703-746-9467. The examiner can normally be reached between 8:30am and 6:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached at 703-308-6602. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Thomas E. Volper

TEV

October 29, 2003

HUY D. VU
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